

LIST
OF
ESSENTIAL OILS

ORGANIC AND SYNTHETIC PRODUCTS

PRESENTED

TO THE

MUSEUM OF THE PHARMACEUTICAL SOCIETY
OF GREAT BRITAIN

17, BLOOMSBURY SQUARE, LONDON W.C.

BY

SCHIMMEL & Co., LEIPZIG.



— 1893. —



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W. Lloyd Williams.
July 1893.

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By far the greater number of the **Essential Oils** in this collection have been distilled by ourselves. Foreign Oils, of the best and purest quality obtainable, have been added for the sake of completeness.

In stating their composition we have confined ourselves to those parts, which up to the present have been ascertained and isolated.

The **chemical preparations** are without exception our own products.

LEIPZIG, March 1893.

SCHIMMEL & C^o

I. Essential

Name of Oil	Part of Plant	Botanical Origin
Oil of Abelmoschus	Seed	<i>Hibiscus Abelmoschus</i> L.
Oil of Ajowan	Seed	<i>Ptychotis Ajowan</i> D & C
Oil of Bitter Almonds	Fruit	<i>Persica vulgaris</i> Mill.
Oil of Amber	Amber	—
Oil of Angelica Root	Root	<i>Archangelica officinalis</i> Hoffm.
Oil of Angelica Seed	Seed	<i>Archangelica officinalis</i> Hoffm.
Oil of Angostura Bark	Bark	<i>Galipea Cusparia</i> St. Hilair
Oil of Aniseed	Seed	<i>Pimpinella Anisum</i> L.

Oils.

Natural Order	Principal Constituents
Malvaceae	
Umbelliferae	Thymol, Cymol.
Amygdalaceae	Benzaldehyde, Prussic Acid.
Umbelliferae	Phellandrene.
Umbelliferae	Phellandrene.
Rutaceae	
Umbelliferae	Anethol.

Name of Oil	Part of Plant	Botanical Origin
Oil of Arnica Root	Root	<i>Arnica montana</i> L
Oil of Asafetida	Gum resin	<i>Ferula Asa foetida</i> L
Oil of Asarum	Root	<i>Asarum Europaeum</i> L
Oil of Balsam Capivi	Balsam	<i>Copaivera</i> spcc.
Oil of Balsam Tolu	Balsam	<i>Myroxilon Toluifera</i> Huntl
Oil of Basil	Leaves	<i>Ocimum Basilicum</i>
Oil of Bay	Leaves	<i>Myrcia acris</i> D & C
Oil of Beechtar	Tar	<i>Fagus sylvatica</i> L
Oil of Bergamot	Green Peels	<i>Citrus Bergamia</i> <i>var. vulgaris</i> R & P
Oil of Betel Leaves	Leaves	<i>Piper Betle</i> L

Natural Order	Principal Constituents
Compositae	Phloryl isobutyrate, dimethyl ether of thymohydroquinone.
Umbelliferae	Several sulphurous compounds, Sesquiterpenes.
Aristolochiaceae	Pinene, Asaron, Methyl Ether of Eugenol.
Caesalpiniaceae	
Papilionaceae	
Labiatae	
Myrtaceae	Pinene, Dipentene (?), Eugenol, Methyl Ether of Eugenol.
Cupuliferae	Aromatic Hydrocarbons, Phenols and their Ethers.
Aurantiaceae	Limonene, Linalool, Acetate of Linalool, Bergaptene.
Piperaceae	Betelphenol, Sesquiterpene.

Name of Oil	Part of Plant	Botanical Origin
Oil of Birchtar	Tar	<i>Betula alba</i> L
Oil of Boldo Leaves	Leaves	<i>Boldoa fragrans</i> R & B
Oil of Büchu Leaves	Leaves	<i>Barosma betulina</i> Bartling
Oil of Cajeput	Leaves	<i>McLaleuca Leucadendron</i> L
Oil of Calamus	Root	<i>Acorus calamus</i> L
Oil of Camphor	Wood and twigs	<i>Laurus camphora</i> L
Oil of Cananga	Flowers	<i>Cananga odorata</i>
Oil of Canella Bark	Bark	<i>Canella alba</i>
Oil of Carawayseed	Seed	<i>Carum carvi</i> L
Oil of Cardamoms	Fruit	<i>Elettaria cardamomum</i>

Natural Order	Principal Constituents
Betulaceae	Guajacol, Kreosol, Kresol, Xylenol.
Monimiaceae	
Diosmaceae	Diosphenol.
Myrtaceae	Cineol, Terpeneol.
Araceae	
Lauraceae	Pinene, Phellandrene, Cineol, Dipentene, Terpeneol (?), Safrol, Eugenol, Sesquiterpene.
Anonaceae	
Lauraceae	Cineol, Eugenol.
Umbelliferae	Limonene, Carvol.
Zingiberaceae	Terpinene, Dipentene (?), Terpeneol (?).

Name of Oil	Part of Plant	Botanical Origin
Oil of Carline thistle	Root	<i>Carlina acaulis</i> L
Oil of Carrot Seed	Fruit	<i>Daucus Carota</i> L
Oil of Cascarilla Bark	Bark	<i>Croton Eluteria</i> Bennet
Oil of Cassia	Twigs and Leaves	<i>Cinnamomum spec.</i>
Oil of Cedar	Leaves	<i>Juniperus Virginiana</i> L
Oil of Cedar Wood	Wood	<i>Juniperus Virginiana</i> L
Oil of Celery	Fruit	<i>Apium graveolens</i> L
Oil of Chamomiles German	Flowers	<i>Matricaria chamomilla</i> L
Oil of Chamomiles Roman	Flowers	<i>Anthemis nobilis</i> L
Oil of Chenopodium Leaves	Leaves	<i>Chenopodium ambrosoides</i> L

Natural Order	Principal Constituents
Compositae	
Umbelliferae	Pinene.
Euphorbiaceae	
Lauraceae	Cinnamic Aldehyde, Acetate of Cinnamyl.
Cupressineae	
Cupressineae	Sesquiterpene.
Umbelliferae	Phellandrene.
Compositae	
Compositae	{ Isobutylic Ethers, Angelicate of isobutyl, An- gelicate of isoamyl, Tiglinate of isoamyl, Tiglinate of Hexyl, Angelicate of Hexyl, Anthemol.
Chenopodiaceae	

Name of Oil	Part of Plant	Botanical Origin
Oil of Chenopodium Seed	Seed	<i>Chenopodium anthelmintic.</i>
Oil of Cherry Laurel	Leaves	<i>Prunus laurocerasus</i> L
Oil of Cinnamon, Ceylon	Bark	<i>Cinnamomum zeylanicum</i> Breyne
Oil of Cinnamon Leaves	Leaves	<i>Cinnamomum zeylanicum</i> Breyne
Oil of Citronella	Leaves and stems	<i>Andropogon Nardus</i> L
Oil of Cloves	Flowerbuds	<i>Caryophyllus aromaticus</i> L
Oil of Coriander Seed	Seed	<i>Coriandrum sativum</i> L
Oil of Cubebs	Fruit	<i>Piper Cubeba</i> L
Oil of Culilawan	Bark	<i>Laurus Culilaban</i> L
Oil of Cumin Seed	Seed	<i>Cuminum Cyminum</i> L

Natural Order	Principal Constituents
Chenopodiaceae	
Amygdalaceae	Benzaldehyde, Prussic Acid.
Lauraceae	Cinnamic Aldehyde, Eugenol, Phellandrene.
Lauraceae	Eugenol.
Gramineae	Citronellon, Geraniol.
Myrtaceae	Eugenol, Sesquiterpene.
Umbelliferae	Coriandrol.
Piperaceae	Cubeb Camphor, Sesquiterpene.
Lauraceae	Eugenol.
Umbelliferae	Cymol, Cumin Aldehyde.

Name of Oil	Part of Plant	Botanical Origin
Oil of Damiana Leaves	Leaves	<i>Turnera microphylla</i> D & C
Oil of Dilem	Leaves	?
Oil of Dill Seed	Seed	<i>Anethum graveolens</i> L.
Oil of Elecampane	Root	<i>Inula Helenium</i> L.
Oil of Elemi	Resin	<i>Icica spec.</i>
Oil of Erigeron	Herb	<i>Erigeron canadensis</i> L.
Oil of Eucalyptus	Leaves	<i>Eucalyptus Baileyana</i>
Oil of Eucalyptus	Leaves	<i>Eucalyptus citriodora</i>
Oil of Eucalyptus	Leaves	<i>Eucalyptus dealbata</i>
Oil of Eucalyptus	Leaves	<i>Eucalyptus globulus</i> L.

Natural Order

Principal Constituents

Turneraceae

Umbelliferae

Limonene, Carvol.

Compositae

Alantic Acid, Helenin.

Burseraceae

Phellandrene, Dipentene.

Compositae

Limonene.

Myrtaceae

Cineol.

Myrtaceae

Cital.

Myrtaceae

Citronellon, Geraniol (?).

Myrtaceae

Pinene, Cineol.

Name of Oil	Part of Plant	Botanical Origin
Oil of Eucalyptus	Leaves	<i>Eucalyptus maculata</i>
Oil of Eucalyptus	Leaves	<i>Eucalyptus rostrata</i>
Oil of Fennel Seed	Seed	<i>Foeniculum vulgare</i> Gärtner
Oil of Galangal Root	Root	<i>Alpinia Galanga</i> Willd.
Oil of Galbanum	Gum-resin	<i>Ferula galbaniflua</i> Boiss. & Buhse
Oil of Garlic	Bulbs	<i>Allium sativum</i> L
Oil of Geranium French	Leaves	<i>Pelargonium spec.</i>
Oil of Geranium, Indian	Leaves	<i>Andropogon Schoenanthus</i> L
Oil of Ginger	Root	<i>Zingiber officinale</i> Roscoe
Oil of Guajac Wood	Wood	?

Natural Order	Principal Constituents
Myrtaceae	Citronellon, Geraniol (?).
Myrtaceae	Cineol.
Umbelliferae	Pinene, Dipentene, Fenchon, Anethol.
Zingiberaceae	Cineol.
Umbelliferae	Sesquiterpene.
Liliaceae	Disulphides $C_6H_{10}S_2$ and $C_6H_{12}S_2$.
Geraniaceae	Geraniol.
Gramineae	Geraniol.
Zingiberaceae	
?	?

Name of Oil	Part of Plant	Botanical Origin
Oil of Heracleum	Fruit	<i>Heracleum Sphondylium</i> L
Oil of Hops	Strobiles	<i>Humulus Lupulus</i> L
Oil of Horsemint	Leaves	<i>Monarda punctata</i>
Oil of Hyssop	Leaves	<i>Hyssopus officinale</i> L
Oil of Jaboranda Leaves	Leaves	<i>Pilocarpus pennatifolius</i> Lemaire
Oil of Juniper Berries	Fruit	<i>Juniperus communis</i> L
Oil of Iva	Leaves	<i>Achillea moschata</i>
Oil of Kuro-moji	Wood	<i>Lindera sericea</i>
Oil of Laurel, Cali- fornian	Leaves	<i>Umbellularia Californica</i>
Oil of Laurel Leaves	Leaves	<i>Laurus nobilis</i> L

Natural Order

Principal Constituents

Umbelliferae	Acetate of Octyl, Butyrate of Hexyl.
Urticaceae	
Labiatae	Thymol.
Labiatae	
Rutaceae	
Cupressineae	Pinene, Sesquiterpene.
Compositae	
Lauraceae	Limonene, Dipentene, Terpeneol, Carvol.
Lauraceae	
Lauraceae	Pinene, Cineol.

Name of Oil	Part of Plant	Botanical Origin
Oil of Lavender	Flowers	<i>Lavandula vera</i> D C
Oil of Lemon	Green Peel	<i>Citrus Limonum</i> Risso
Oil of Lemongrass	Herb	<i>Andropogon citratus</i> D C
Oil of Linaloe	Wood	<i>Elaphrium gravecolens</i> ?
Oil of Lovage	Root	<i>Levisticum officinale</i> Koch
Oil of Mace	Mace	<i>Myristica officinalis</i> L
Oil of Marjoram	Herb	<i>Origanum majorana</i> L
Oil of Marsh Tea	Herb	<i>Ledum palustre</i>
Oil of Massoy Bark	Bark	<i>Massoia aromatica</i>
Oil of Masterwort	Root	<i>Imperatoria Ostruthium</i> L

Natural Order	Principal Constituents
Labiatae	Linalool, Acetate of Linalool, Geraniol (?).
Aurantiaceae	Pinene, Limonene, Citral.
Gramineae	Citral.
?	Linalool.
Umbelliferae	Phellandrene.
Myristicaceae	Pinene, Myristicin
Labiatae	
Ericaceae	
Lauraceae	Pinene, Limonene, Dipentene, Eugenol, Safrol.
Umbelliferae	

Name of Oil	Part of Plant	Botanical Origin
Oil of Matico Leaves	Leaves	<i>Piper angustifolium</i> R & I
Oil of Milfoil	Flowers	<i>Achillea Millefolium</i>
Oil of Mugwort	Herb	<i>Artemisia vulgaris</i>
Oil of Mustardseed	Seed	<i>Sinapis nigra</i> A
Oil of Myrrh	Gum-resin	<i>Balsamodendron Myrrha</i> Nees
Oil of Myrtle	Leaves	<i>Myrtus communis</i> L
Oil of Nutmegs	Fruit	<i>Myristica officinalis</i> L
Oil of Olibanum	Resin	<i>Boswellia spec.</i>
Oil of Onion	Bulbs	<i>Allium cepa</i>
Oil of Opopanax	Gum-resin	<i>Opopanax Chironium</i> Koc

Natural Order	Principal Constituents
Piperaceae	Matico Camphor.
Compositae	
Compositae	
Cruciferae	Allyl Mustard Oil.
Burseraceae	
Myrtaceae	Pinene, Cineol, Dipentene.
Myristicaceae	Pinene, Myristicin.
Burseraceae	Dipentene, Phellandrene.
Liliaceae	Disulphide $C_6H_{12}S_2$.
Umbelliferae	

Name of Oil	Part of Plant	Botanical Origin
Oil of Bitter Orange	Green Peels	<i>Citrus Bigaradia</i> Dich.
Oil of Sweet Orange	Green Peels	<i>Citrus Aurantium</i>
Oil of Orange Flowers	Flowers	<i>Citrus Bigaradia</i> Dich.
Oil of Origanum	Herb and Flowers	<i>Origanum spec.</i>
Oil of Origanum	Herb	<i>Origanum vulgare</i> L
Oil of Orris Root	Root	<i>Iris florentina</i>
Oil of Parsley	Seed	<i>Apium Petroselinum</i> L
Oil of Parsnep	Fruit	<i>Pastinaca sativa</i> L
Oil of Patchouly	Leaves	<i>Pogostemon Patchouli</i> Pelle
Oil of Penny Royal	Leaves	<i>Pulegium vulgare</i>

Natural Order	Principal Constituents
Aurantiaceae	Limonene.
Aurantiaceae	Limonene.
Aurantiaceae	
Labiatae	Carvacrol.
Labiatae	Carvacrol.
Iridaceae	Myristic Acid.
Umbelliferae	Pinene, Apiol.
Umbelliferae	Propionate of Octyl, Butyrate of Octyl.
Labiatae	Sesquiterpene, Patchouly Camphor.
Labiatae	Pulegon.

Name of Oil	Part of Plant	Botanical Origin
Oil of Pepper	Fruit	<i>Piper nigrum</i> L.
Oil of Japan Pepper	Fruit	<i>Xanthoxylum piperitum</i> D C
Oil of Long Pepper	Fruit	<i>Piper longum</i> L.
Oil of Peppermint	Leaves	<i>Mentha piperita</i>
Oil of Petitgrain	Leaves	<i>Citrus Bigaradia</i> Dich.
Oil of Pimento	Fruit	<i>Eugenia Pimenta</i> D & C
Oil of Pimpinella	Root	<i>Pimpinella Saxifraga</i> L.
Oil of Pinetar (Matsu Oil)	Tar	<i>Pinus densiflora</i> S & Z
Oil of Pinus Pumilio- onis	Leaves	<i>Pinus pumilio</i>
Oil of Pinus Sylvestris	Leaves	<i>Pinus sylvestris</i> L.

Natural Order	Principal Constituents
Piperaceae	Phellandrene, Sesquiterpene.
Piperaceae	Cital.
Piperaceae	
Labiatae	Menthene, Limonene, Menthon, Menthol.
Aurantiaceae	Aurantiol (Linalool ?).
Myrtaceae	Sesquiterpene, Eugenol.
Umbelliferae	
Abietineae	
Abietineae	Pinene, Sylvestrene, Dipentene, Acetate of Borneol.
Abietineae	Pinene, Limonene, Acetate of Borneol.

Name of Oil	Part of Plant	Botanical Origin
Oil of Black Poplar	Buds	<i>Populus nigra</i> L
Oil of Rosemary, French	Herb and Flowers	<i>Rosmarinus officinalis</i> L
Oil of Rosemary, Italian	Herb	<i>Rosmarinus officinalis</i> L
Oil of Roses, German	Flowers	<i>Rosa moschata</i>
Oil of Roses, Turkish	Flowers	<i>Rosa damascena</i>
Oil of Rue	Herb	<i>Ruta graveolens</i>
Oil of Sage	Leaves	<i>Salvia officinalis</i> L
Oil of Sandal Wood, African	Wood	?
Oil of Sandal Wood, Australian	Wood	<i>Santalum Pracissii</i>
Oil of Sandal Wood, East India	Wood	<i>Santalum album</i> L

Natural Order	Principal Constituents
Salicaceae	Diterpene.
Labiatae	Pinene, Cineol, Borneol, Camphor.
Labiatae	Pinene, Cineol, Borneol, Camphor.
Rosaceae	Rhodinol, Paraffins.
Rosaceae	Rhodinol, Paraffins.
Rutaceae	Methyl-Nonyl-Ketone.
Labiatae	Pinene, Cineol Thujon.
?	
Santalaceae	

Name of Oil	Part of Plant	Botanical Origin
Oil of Sandal Wood, Swan River	Wood	?
Oil of Sandal Wood, West India	Wood	?
Oil of Sassafras	Wood	<i>Sassafras officinalis</i> Nees
Oil of Savin	Herb	<i>Juniperus Sabina</i> L
Oil of Silver Fir	Leaves	<i>Pinus picca</i> L
Oil of Snakeroot	Root	<i>Aristolochia Serpentaria</i> L
Oil of Snakeroot Canada	Root	<i>Asarum canadense</i>
Oil of Spearmint	Leaves	<i>Mentha crispa</i>
Oil of Spicewood	Wood	<i>Laurus Benzoin</i>
Oil of Spike	Herb	<i>Lavandula spica</i> D C

Natural Order	Principal Constituents
Santalaceae	
?	
Lauraceae	Safrol, Eugenol.
Cupressineae	Pinene, Sesquiterpene.
Abietineae	Pinene, Limonene, Acetate of Borneol.
Aristolochiaceae	
Aristolochiaceae	
Labiatae	Carvol.
Lauraceae	
Labiatae	Pinene, Cineol.

Name of Oil	Part of Plant	Botanical Origin
Oil of Spikenard	Root	<i>Valeriana celtica</i> L
Oil of Staraniseed	Fruit	<i>Illicium anisatum</i>
Oil of Staraniseed, Japan	Fruit	<i>Illicium religiosum</i>
Oil of Storax	Gum-resin	<i>Liquidambar orientalis</i> Miller
Oil of Sumbul Root	Root	<i>Ferula Sumbul</i> Hooker
Oil of Summer Sa- vory	Leaves	<i>Satureja hortensis</i> L
Oil of Tangerine	Green Peels	<i>Citrus Bigaradia sinensis</i>
Oil of Tansy	Herb	<i>Tanacetum vulgare</i> L
Oil of Tarragon	Herb	<i>Artemisia Dracunculus</i> L
Oil of Thuja	Leaves	<i>Thuja occidentalis</i>

Natural Order	Principal Constituents
Valerianaceae	
Magnoliaceae	Anethol, Safrol, Ethylic Ether of Hydroquinone, Phellandrene.
Magnoliaceae	Safrol.
Hamamelideae	Styrol.
Umbelliferae	
Labiatae	Cymol, Carvacrol.
Aurantiaceae	Cital, Limonene.
Compositae	Tanaceton (Thujon).
Compositae.	Anethol, Methyl Chavicol.
Cupressineae	Thujon, Fenchon.

Name of Oil	Part of Plant	Botanical Origin
Oil of Turmeric	Root	<i>Curcuma longa</i> L
Oil of Turpentine	Wood	<i>Pinus spec.</i>
Oil of Thyme	Herb	<i>Thymus vulgaris</i> L
Oil of Valeriana	Root	<i>Valeriana officinalis</i> L
Oil of Valeriana, Jap. (Kesso Oil)	Root	<i>Valeriana officinalis</i> L <i>var. angustifolia</i>
Oil of Vetiver	Root	<i>Andropogon muricatus</i> Retzius
Oil of Walnut Leaves	Leaves	<i>Juglans regia</i>
Oil of Water Hem- lock	Fruit	<i>Phellandrium aquaticum</i> L
Oil of Wild Cherry Bark	Bark	<i>Prunus Virginiana</i>
Oil of Wild Thyme	Herb	<i>Thymus Serpyllum</i> L

Natural Order	Principal Constituents
Zingiberaceae	Phellandrene.
Abietinae	Pinene.
Labiatae	Cymol, Thymol, Carvacrol.
Valerianaceae	Pinene, Borneol, Formiate of Borneol, Acetate of Borneol, Isovalerianate of Borneol.
Valerianaceae	Pinene, Dipentene, Terpineol, Borneol, Acetate of Borneol, Isovalerianate of Borneol, Acetate of Kessyle.
Gramineae	
Juglandaceae	
Umbelliferae	Pinene, Dipentene, Phellandrene.
Amygdalaceae	Benzaldehyde, Prussic Acid.
Labiatae	Thymol, Carvacrol.

Name of Oil	Part of Plant	Botanical Origin
Oil of Wintergreen	Leaves	<i>Gaultheria procumbens</i>
Oil of Wormseed	Flower buds	<i>Artemisia maritima</i> L
Oil of Wormwood	Leaves	<i>Artemisia Absinthium</i> L
Oil of Ylang Ylang	Flowers	<i>Anona odoratissima</i>
Oil of Zedoary Root	Root	<i>Curcuma Zedoaria</i> Roscoe

Natural Order	Principal Constituents
Ericaceae	Methyl salicylate.
Compositae	Cineol, Dipentene.
Compositae	Thujon.
Anonaceae	
Zingiberaceae	Cineol.

II. Organic and

Name	Chemical Composition
Alantic Acid	$C_{15}H_{22}O_3$
Anethol	$CH_3O \cdot C_6H_4 \cdot C_3H_5$
Anisic Acid	$CH_3O \cdot C_6H_4 \cdot COOH$
Anisic Aldehyde	$CH_3O \cdot C_6H_4 \cdot COH$
Apiol (Parsley Camphor)	$C_{12}H_{14}O_4$
Asaron	$(CH_3O)_3 \cdot C_6H_2 \cdot C_3H_5$
Benzoate of Methyl	$C_6H_5 \cdot COOCH_3$
Benzoic Aldehyde	C_6H_5COH

Synthetic Products.

Produced from:

Oil of Elecampane.

Oil of Aniseed, Oil of Star Aniseed, Oil of Fennelseed, Oil of Tarragon.

{ Products of oxydation of Anethol.
}

Oil of Parsley.

Oil of Asarum.

Oil of Bitter Almond, Oil of Cherry Laurel, Oil of Wild Cherry.

Name	Chemical Composition
Bergaptene	$C_{12}H_8O_4$
Camphene	Terpene $C_{10}H_{16}$
Carvacrol	Phenol $C_{10}H_{14}O$
Carvol	Ketone $C_{10}H_{14}O$
Cinnamein	Cinnamic Ether of Benzyl $C_6H_5 \cdot C_2H_2 \cdot COOC_6H_5CH_2$
Cinnamic Acid	$C_6H_5 \cdot CH \cdot CH \cdot COOH$
Cinnamic Alcohol	$C_6H_5CH \cdot CH \cdot CH_2OH$
Cinnamic Aldehyde	$C_6H_5 \cdot CH \cdot CH \cdot COH$
Cinnamic Ether of Methyl	$C_6H_5 \cdot CH \cdot CH \cdot COOCH_3$
Citral	Aldehyde $C_{10}H_{16}O$

Produced from:

Oil of Bergamot.

Borneol.

Oil of Origanum, Oil of Thyme, Oil of Summer Savory.

Oil of Carawayseed, Oil of Dillseed.

Balsam Peru.

Product of oxydation of Cinnamic Aldehyde.

Oil of Cinnamon.

Oil of Lemon, Oil of Lemongrass, Oil of Japan Pepper, Oil of Eucalyptus (from *E. citriodora*).

Name	Chemical Composition
Cumarin	Lactone $C_6H_4 \begin{matrix} \diagup O - CO \\ \diagdown CH : CH \end{matrix}$
Cuminic Acid	$C_3H_7 \cdot C_6H_4 \cdot COOH$
Cuminol (Cumin Aldehyde)	Aldehyde $C_3H_7 \cdot C_6H_4 \cdot CHO$
Cymol	Hydrocarbon $C_3H_7 \cdot C_6H_4 \cdot CH_3$
Dextro-Borneol	Alcohol $C_{10}H_{17}OH$
Leavo-Borneol	$C_{10}H_{17}O$
Eucalyptol (Cineol)	$C_{10}H_{18}O$
Eugenol	Phenol $C_6H_3 \begin{matrix} (1) C_3H_5 \\ (3) OCH_3 \\ (4) OH \end{matrix}$
Fenchon	Ketone $C_{10}H_{16}O$
Furfurol	Aldehyde $C_5H_4O_2$

Produced from :

Tonka Beans, *Asperula odorata*, *Melilotus* etc.

Product of oxydation of Cumin Aldehyde.

Oil of Cumin.

Oil of Ajowan, Oil of Cumin, Oil of Thyme.

Oil of Valeriana, Oil of Rosemary.

Oil of Cajeput, Oil of Camphor, Oil of Eucalyptus, Oil of Galangal,
Oil of Laurel, Oil of Myrtle, Oil of Rosemary, Oil of Sage, Oil
of Spike, Oil of Cinnamon, Oil of Wormseed, Oil of Zedoary Root.

Oil of Bay-Leaves, Oil of Camphor, Oil of Massoy Bark, Oil of
Cloves, Oil of Pimento, Oil of Sassafras, Oil of Cinnamon Ceylon,
Oil of Canella Bark, Oil of Cinnamon Leaves.

Oil of Fennelseed, Oil of Thuja.

By distillation of bran with Sulphuric Acid.

Name	Chemical Composition
Geraniol	Alcohol $C_{10}H_{18}O$
Helenin	Lactone $C_{15}H_{20}O_2$
Heliotropin (Piperonal)	Aldehyde $CH_2 \begin{array}{c} \diagup O \\ \diagdown O \end{array} C_6H_3 \cdot COH$
Isobutyl Mustard Oil	C_4H_9NCS
Limonene	Terpene $C_{10}H_{16}$
Menthene	Hydrocarbon $C_{10}H_{18}$
Menthol	Alcohol $C_{10}H_{20}O$
Menthone	Ketone $C_{10}H_{18}O$
Patchouly-Camphor	$C_{15}H_{26}O$
Safrol	$CH_2 \begin{array}{c} \diagup O \\ \diagdown O \end{array} C_6H_3 \cdot C_3H_5$

Produced from:

Oil of Citronella, Oil of Geranium.

Oil of Elecampane.

Product of oxydation of Piperinic Acid.

{ Oil of Bergamot, Oil of Lemon, Oil of Dillseed, Oil of Silver Fir,
Oil of Erigeron, Oil of Pinus Sylvestris, Oil of Carawayseed, Oil
of Kuro-inoji, Oil of Pinus Pumilionis, Oil of Massoy Bark, Oil
of Peppermint, Oil of Orange.

Menthol.

Oil of Peppermint.

Oil of Peppermint. By oxydation of Menthol.

Oil of Patchouly.

Oil of Camphor, Massoy Bark, Sassafras, Staraniseed.

Name	Chemical Composition
Salicylate of Methyl	$\text{OH} \cdot \text{C}_6\text{H}_4 \cdot \text{COOCH}_3$
Salicylic Aldehyde	$\text{OH} \cdot \text{C}_6\text{H}_4 \cdot \text{COH}$
Stearoptene (from Oil of Roses)	Paraffin $\text{C}_n\text{H}_{2n+2}$
Terpineol	Alcohol $\text{C}_{10}\text{H}_{18}\text{O}$
Terpineol, cryst.	$\text{C}_{10}\text{H}_{18}\text{O}$
Thymochinon	$\text{C}_3\text{H}_7 \cdot \text{C}_6\text{H}_2(\text{CH}_3)_2\text{O}_2$
Thymol	Phenol $\text{C}_{10}\text{H}_{14}\text{O}$

Produced from:

Oil of Wintergreen.

Oil of Spiraea.

Oil of Roses.

Oil of Valeriana Japan, Oil of Camphor, Oil of Cardamoms, Oil of
Kuro-moji.

Oil of Cajeput.

Product of Oxydation of Thymol.

Oil of Ajowan, Oil of Horsemint, Oil of Thyme.



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